Crestron Isys i/O™ TPMC-15-QM

15" Touchpanel Media Center

with QuickMedia™ Transport Technology

Isys i/O ingeniously integrates touchpanel control with embedded PC functionality, delivering a unified multimedia presentation solution. Incorporating modern styling in a versatile tiltcase design, the TPMC-15-QM Touchpanel Media Center features a spectacular 15" XGA display offering incredible brightness and contrast for stunning control graphics, high-res images, embedded PC applications, and full-motion video.

Touchpanel Control and Presentation—In every sense, the TPMC-15-QM is a true Crestron touchpanel, offering vibrant 24-bit color depth with 8-bit alpha channel to produce incredible 3D graphics, dynamic text, full-motion animations, animated pop-ups, translucency, and dramatic transition effects, all with astonishing speed. But more than a touchpanel, the TPMC-15-QM is also a dynamic presentation source, delivering high-resolution graphics and audio to any sized audience via integrated QuickMedia transport technology.

Embedded PC—The power of Isys i/O is in its embedded PC engine, combining rock solid touchpanel performance with enhanced capabilities for surfing the Internet, streaming multimedia, and desktop videoconferencing. Running the Microsoft® Windows® XP Embedded operating system behind the scenes, Isys i/O ensures full Web compliance while maintaining secure and reliable performance.

With built-in Windows Media® Player and Internet Explorer, plus viewers for Word, Excel, PowerPoint®, and Adobe® Acrobat®, the TPMC-15-QM serves as a multimedia presentation source without necessitating a separate computer. NetMeeting® and Remote Desktop are also included to enable videoconferencing and provide remote access to other computers. Programmatic control erases the lines between control system and PC, allowing programmers to customize each application's behavior to create a truly powerful and user-friendly interface.

Both Cresnet and high-speed Ethernet are standard providing for seamless communications with Crestron control systems, computers, digital media servers, and other IP-based devices. Wi-Fi wireless networking and memory expansion are easily added through two PC card slots, and two USB ports enable the connection of an external mouse and keyboard (sold separately), as well as USB cameras, CD ROM drives, and memory devices.*

Touch-the-PC—In addition to its built-in PC, the TPMC-15-QM is also enabled to display and control externally-connected computers. Crestron's exclusive "Touch-the-PC" technology allows real-time touchpanel navigation of any Windows PC through a direct high-speed serial connection.

MediaMarker™ Annotation—Built-in annotation allows presenters to write or draw electronically on the touchscreen using a finger or stylus. Whether drawing freehand on a whiteboard screen, highlighting points on a spreadsheet, or making notes over motion video or still images, MediaMarker facilitates crystal clear visual communications.

Dual Video/RGB Windows—In addition to its internal PC and streaming video applications, the TPMC-15-QM also supports the display of full-motion video and high-resolution RGB signals from external sources in up to two scalable windows. Discrete video scalers with motion adaptive deinterlacing bring out the highest detail, minimizing visible scan lines and motion artifacts for an incredible picture.

High-Quality Audio—To complement its amazing video and computer capabilities, the TPMC-15-QM delivers great sounding audio from a built-in biamplified speaker system and stereo headphone output. An integrated microphone is included as well to support conferencing and intercom applications.

QuickMedia™—All audio and video connections are facilitated using Crestron's revolutionary QuickMedia transport, providing a flexible yet remarkably simple wiring solution. Through QuickMedia (QM), the TPMC-15-QM interfaces directly with Crestron's QM-based MediaManager products using inexpensive CAT5e or CAT6 cable.

Two QM Input ports support composite, S-Video, component, and HDTV video formats, and non-interlaced RGB up to 1600 X 1200 pixels. QM Input #1 includes software-adjustable compensation for cable runs up to 328 feet; Input #2 supports up to 300 feet for video and HDTV, and shorter distances for RGB computer signals. Both QM Inputs receive audio signals from external microphone and stereo line level sources.

The QM Output port delivers high-resolution RGB graphics and 24-bit digital stereo audio from the internal PC to feed display devices and sound systems for audience presentation.

> 15" Active Matrix Touchscreen Display | 1024 x 768 Resolution

> 24-Bit Isys i/O Graphics | Synapse Image Rendering Algorithm

> Windows XP Embedded Operating System

> Onboard PC Applications for Web Browsing, Streaming Media, Videoconferencing, Remote Computer Control, and Digital Media Presentation - No Computer Required!

> Built-in Real-time Annotation using Crestron MediaMarker

> Dual-Window Full-Motion Video and RGB Display

> Built-in 10 Watt Biamplified Speaker System and Microphone

> QuickMedia AV Connectivity | Audience Presentation Output

> Secure High-Speed Ethernet and Cresnet Communications

> 802.11g Wireless LAN Capable via Optional PC Card

> Tiltcase Housing with Integral Rear Cover and Cable Strain Relief

> Optional USB Keyboard and Optical Mouse

Crestron Isys i/O™ TPMC-15-QM 15" Touchpanel Media Center

SPECIFICATIONS

Touchscreen Display

Display Type: TFT Active matrix color LCD
Size: 15 inch (38.1 cm) diagonal widescreen
Aspect Ratio: 4:3 XGA
Resolution: 1024 x 768 pixels
Brightness: 400 nits
Contrast: 300:1
Illumination: Backlit fluorescent
Viewing Angle: ±85° horizontal, ±85° vertical
Touchscreen: Resistive membrane

Processor

VIA Eden™ 667 MHz CPU

Memory

SDRAM: 512 MB
Flash: 512 MB internal compact flash card, expandable via rear panel PC Card slots

Operating System

Microsoft® Windows® XP Embedded

Graphic Engine

Isys i/O engine, VIA Unichrome™ CLE266 chipset, 24 Bit non-palette graphics + 8 Bit alpha (transparency) and video, 16.7 million colors, Synapse image rendering algorithm

Embedded Software Applications*

Crestron MediaMarker™, Microsoft Internet Explorer w/Macromedia® Flash® plug-in, Windows Media® Player, Wordpad, Remote Desktop, and NetMeeting®, plus viewers for PowerPoint®, Excel, Word, and Adobe® Acrobat®

Ethernet

10BaseT/100BaseTX, auto-negotiating, full/half duplex TCP/IP, UDP/IP, DHCP, IEEE 802.3U compliant

Wireless

Wireless Ethernet capable using third-party 802.11 PC card*

Video/RGB

Scalers: (2) one per QM input, each feeding one onscreen video window or full screen image; line doubling of video sources and scaling of RGB sources, automatic detection of input format, motion adaptive de-interlacing, and reverse 3:2/2:2 pulldown
Digital Sampling: 24 bits per pixel, 8 bits per color
Resolution: 24-bit video/graphics
Output Color Depth: 24 bits per pixel, 8 bits per color
Streaming/File Formats: ASF, ASX, AVI, MPEG, WMV, WMX, WVX (via WMP)

Audio

Hardware Features: Built-in microphone and biamplified speakers, stereo headphone output, internal volume control and audio mixer
Streaming/File Formats: MP3, WAV, WAX, WMA (via WMP)
Audio Feedback (WAV): 8 & 16 bit PCM, mono & stereo, 8 – 44 kHz sampling rates
D-A / A-D Conversion (QM): Burr Brown 24-bit, 48 kHz
Amplification: Biamplified, mono, 5 Watts for high-frequency, 5 Watts for low-frequency

Buttons

▼▲■ : (4) Backlit "softkey" buttons, programmable
↻ : (1) Backlit hard reset button, reboots the touchpanel system

Connectors

QM IN 1: (1) 8-wire RJ45 female, QuickMedia input port
Dynamically configurable under system control as:

- (1) RGB (VGA) input with stereo program audio and (2) mic channels, or
- (1) Component, S-Video, or Composite video input with stereo program audio and (2) mic channels

RGB Format: RGBHV
RGB Input Resolution, Non-interlaced: 640 x 480 minimum to 1600 x 1200 maximum (70 Hz limit at 1600 x 1200);
Video Formats: Composite, Y/C, or YP_BP_R; 480i (NTSC), 576i (PAL), 480p, 576p, 720p and 1080i;
Horizontal Frequency: 15 to 100 kHz
Vertical Frequency: 50 to 85 Hz
Delay Skew Compensation: 0 – 22 nS
Maximum Cable Length: 328 ft for all formats (aggregate distance from QM transmitter)
Connects to QM output port of a QM-TX or other QuickMedia device via CresCAT-QM or CAT5e/6 cable

QM IN 2: (1) 8-wire RJ45 female, QuickMedia input port
Dynamically configurable under system control as:

- (1) RGB (VGA) input with stereo program audio and (2) mic channels, or
- (1) Component, S-Video, or Composite video input with stereo program audio and (2) mic channels

RGB Format: RGBHV
RGB Input Resolution, Non-interlaced: 640 x 480 minimum to 1600 x 1200 maximum (70 Hz limit at 1600 x 1200);
Video Formats: Composite, Y/C, or YP_BP_R; 480i (NTSC), 576i (PAL), 480p, 576p, 720p and 1080i;
Horizontal Frequency: 15 to 100 kHz
Vertical Frequency: 50 to 85 Hz
Delay Skew Compensation: none
Maximum Cable Length: 300 ft for video/HDTV; 69 ft for RGB at 1024 x 768 @ 75 Hz; 40 ft for RGB at 1280 x 1024 @ 75 Hz; 20 ft for RGB at 1600 x 1200 @ 60 Hz (using CresCAT-QM; results may vary using other cable);
Connects to QM output port of a QM-TX or other QuickMedia device via CresCAT-QM or CAT5e/6 cable

QM OUT 1: (1) 8-wire RJ45 female, QuickMedia output port containing RGB output with stereo audio from internal PC and (2) discete channels from internal mic;
RGB Format: RGBHV
RGB Output Resolution, Non-interlaced: 1024 x 768 pixels
Connects to QM input port of any QuickMedia device via CresCAT-QM or CAT5e/6 cable

HEADPHONES: (1) 3.5 mm TRS mini phone jack
Output Power: 105 mW per channel
Minimum Impedance: 8 ohms

USB: (2) USB Type A female, USB 1.1 ports for mouse, keyboard, and storage devices*

RS-232: (1) 6-pin RJ11 female, computer console port
Bidirectional RS-232 up to 115.2k baud
Hardware and software handshaking support

PC CARD A – B: (2) Type II PCMCIA Card slots for memory expansion, project upload, and wireless NIC*

ETHERNET: (1) 8-wire RJ45 with 2 LED indicators, 10BaseT/100BaseTX Ethernet port
Green LED indicates network speed, Yellow LED indicates Ethernet activity

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NET: (1) 4-pin 5mm detachable terminal block
Cresnet Slave Port (data only; 24V terminal not used)
Connects to Cresnet control network

PWR: (1) 4-pin DIN female, DC power input (External power supply included)

GND: (1) 6-32 screw, chassis ground lug

Power Requirements

8.4 Amp @ 12 Volts DC – External power supply included

Cresnet Power Usage: 0 Watt @ 24 Volts DC

Enclosure

Construction: High impact black/silver injection-molded case with integral rear cover and cable strain relief
Screen Tilt: Adjustable 45 to 90 degrees

Environmental

Temperature: 50° to 113°F (10° to 45°C)
Humidity: 10% to 90% RH (non-condensing)

Dimensions

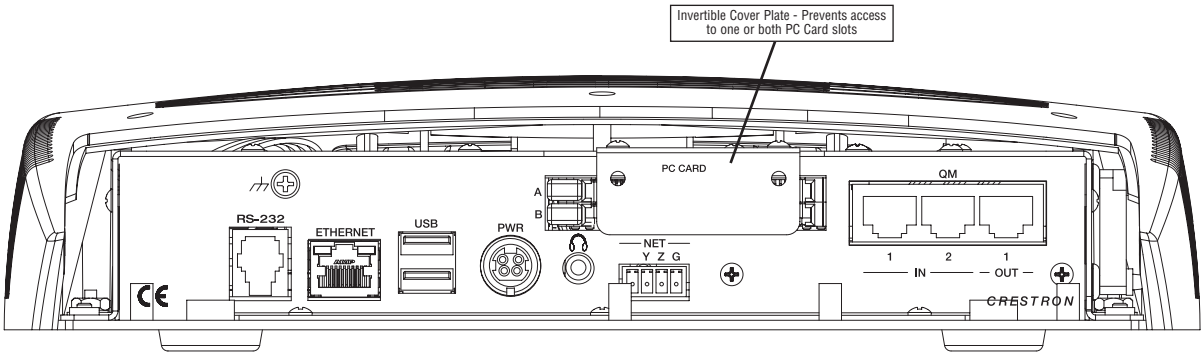
Height: 14.17 in (35.99 cm)
Width: 14.94 in (37.95 cm)
Depth: 13.74 in (34.90 cm)

Weight

15.8 lbs (7.1 kg)

** See manual or contact Crestron for a current list of compatible devices and embedded applications. To ensure reliable performance, new device drivers and applications are available only from Crestron through firmware updates.*

"Softkey" Buttons on top of Base (below touchscreen)



Rear View of Base – Rear cover removed to show I/O panel

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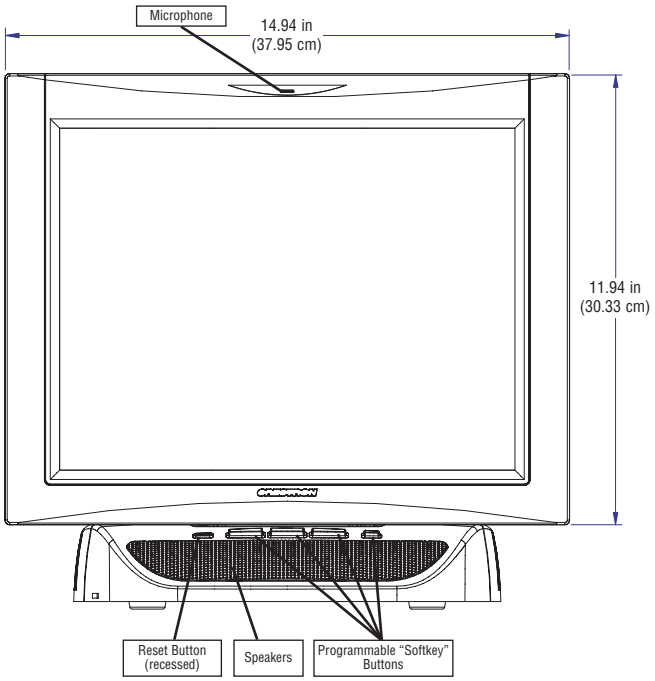
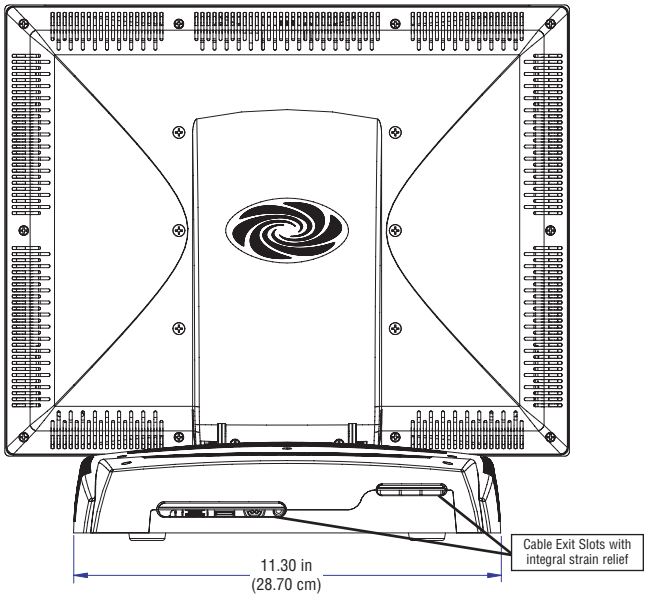
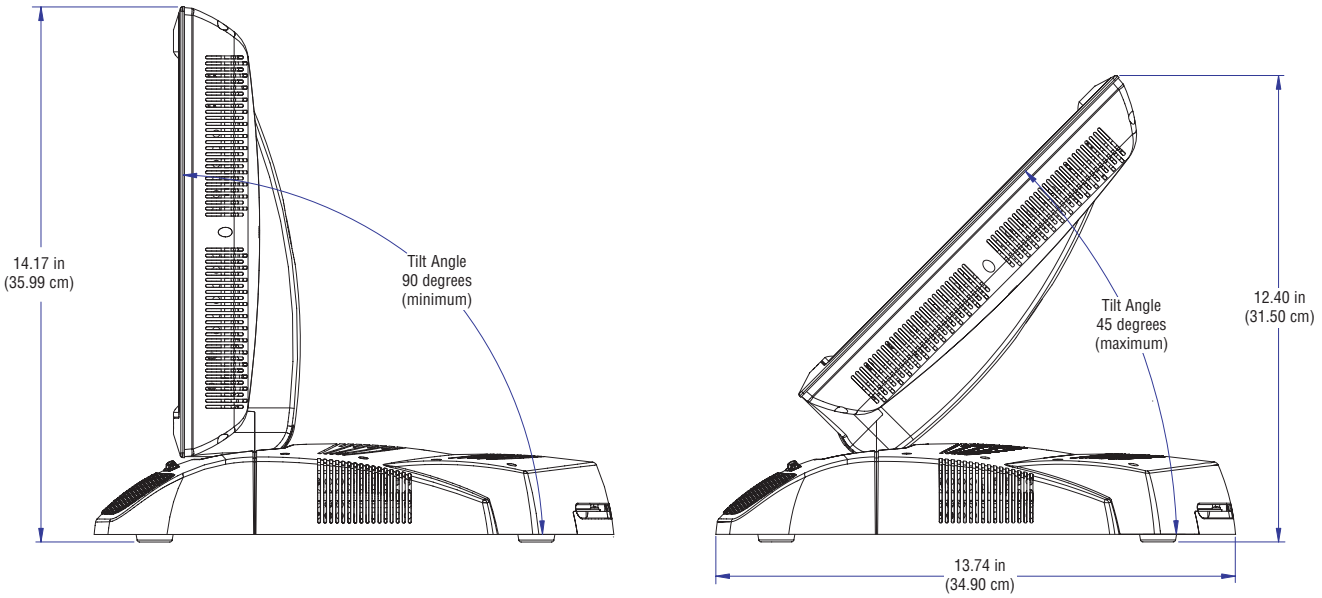


Front View



Rear View



Right Side View

AVAILABLE ACCESSORIES

TPMC-10-MSKB
USB Mouse and Keyboard

QM-TX
QuickMedia Transmitter

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